

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/041421 A1

(51) International Patent Classification⁷: **H03M 13/27** (74) Agent: STRÖM & GULLIKSSON IPC AB; P.O. Box 793, S-220 07 Lund (SE).

(21) International Application Number:

PCT/EP2004/010871

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:
29 September 2004 (29.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03021960.4 30 September 2003 (30.09.2003) EP
60/508,577 3 October 2003 (03.10.2003) US

(71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) [SE/SE]; S-164 83 Stockholm (SE).

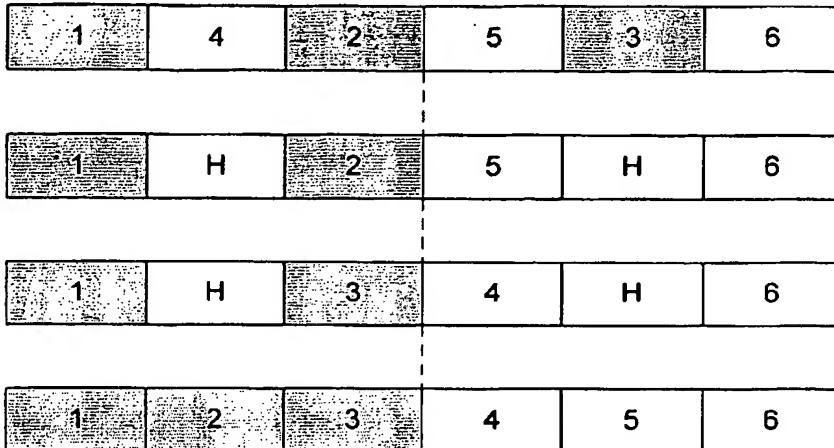
(72) Inventor; and

(75) Inventor/Applicant (for US only): SVENSSON, Mats [SE/SE]; Valdemars väg 98, S-224 74 Lund (SE).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: IN-PLACE DATA DEINTERLEAVING



(57) Abstract: A method for deinterleaving a sequence of interleaved data stored in a set of memory locations from a first order to a second order in-place of a memory with linear time. Two data items are withdrawn from the center of the sequence, creating a hole therein. Destination positions for said withdrawn data items are determined. It is determined whether the destination positions contain any data items. If so, the data items of said destination positions are replaced with the withdrawn data items, and second destination positions are determined for the data items withdrawn from the first destination positions. Otherwise, the first data items are inserted at the destination positions directly. If a data item is inserted at the hole of the sequence before the sequence is properly deinterleaved, an incorrect positioned data item is determined and repositioned. The repositioning sequence is repeated until all data items are correctly positioned.

WO 2005/041421 A1



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.